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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/621,448	07/18/2003	Tsutomu Ohishi	240473US2	1119
22850 7590 12/04/2008 OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314				
EXAMINER KAU, STEVEN Y				
ART UNIT		PAPER NUMBER		
2625				
NOTIFICATION DATE		DELIVERY MODE		
12/04/2008		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/621,448

Applicant(s)

OHISHI ET AL.

Examiner

STEVEN KAU

Art Unit

2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 August 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 and 13-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 13-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/S508)
- Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. Applicant's amendment was received on 8/7/2008, and has been entered and made of record. Currently, claims 1-11 and 13-23 are pending for further examination in this Action.

Response to Remark/Arguments

2. Response to Remarks.

- Applicant's arguments, "Rejection Under 35 U.S.C. § 112, first paragraph", pages 2-4, Remark, with respect to claims 1-11 and 13-23 have been fully considered and are persuasive. The rejection of claims 1-11 and 13-23 under 35 U.S.C. § 112 first paragraph has been withdrawn.
- Applicant's arguments, "Rejection Under 35 U.S.C. § 112, second paragraph", page 4, Remark, with respect to claims 1-11 and 13-23 have been fully considered and are persuasive. The rejection of claims 1-11 and 13-23 under 35 U.S.C. § 112 Second Paragraph has been withdrawn.

However, the instant invention is unpatentable over Inoue et al (US 6,456,388) in view by Tyler et al (US 5,638,498). Detail examination of the instant invention is presented in the following sections.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 13-22 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter as follows:

Claim 22 is directed to a computer readable medium claim, in which a computer readable medium storing program code for causing an image forming apparatus to launch an application. Since **"a computer-readable medium"** is not defined in the disclosure, "a computer readable medium" could just be a form of signal carrying data to program a processor. For instance, a client computer machine can send a request signal to a server (another computer machine) requesting for printing a print job. A "signal" is not a process because it is not a series of steps per se. Furthermore, a "signal" is not a "machine", "composition of matter" nor a "manufacture" because these statutory classes "relate to structural entities and can be grouped as 'product' claims in order to contrast them with process claims." (1 D. Chisum, Patents § 1.02 (1994)). Machines, manufactures and compositions of matter are embodied by physical structures or material, whereas a "signal" has neither a physical structure nor a tangible material. That is, a "signal" is not a "machine" because it has no physical structure, and does not perform any useful, concrete and tangible result. Likewise, a "signal" is not a "composition of matter" because it is not "matter", but rather a form of energy. Finally, a "signal" is not a "manufacture" because all traditional definitions of a "manufacture" have required some form of physical structure, which a claimed signal does not have.

A “manufacture” is defined as “the production of articles for use from raw materials or prepared materials by giving to these materials new forms, qualities, properties, or combinations, whether by hand-labor or by machinery.” *Diamond v. Chakrabarty*, 447 U.S. 303, 308, 206 USPQ 193, 196-97 (1980) (quoting *American Fruit Growers, Inc. v. Brogdex Co.*, 283 U.S. 1, 11, 8 USPQ 131, 133 (1931)).

Therefore, a “signal” is considered non-statutory because it is a form of energy, in the absence of any physical structure or tangible material, that does not fall within any of the four statutory classes of 35 U.S.C. §101.

Claims 13-21 are rejected under 35 U.S.C. 101 because of their dependency to claim 22.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 3-9, 11 and 14-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwata (US 6,697,847) in view of Yangihara et al (US 6,161,102)

Regarding claim 1.

Iwata' 847 discloses an image forming apparatus (**Information Process System of Figs. 9 & 39, and block diagram arrangement of Information Process System is disclosed in col 14, lines 62-67**) that includes service modules (e.g. Agent 300 of Fig.

20) for performing system side processes on image formation, wherein applications can be added to the image forming apparatus separately from the service modules (e.g. by **downloading software or an application from a computer of Fig. 2, col 25, lines 22-44**), the image forming apparatus comprising: an application launch part (**Display Data Getting part and LAN Interface of Figs. 44 & 47**) configured to launch the one or more applications from the auxiliary storage device () (e.g. **downloading software from a computer, col 25, line 22 to col 26, line 26**) wherein the service modules are stored in a memory distinct from the auxiliary storage device (e.g. **hard disk 38 of Fig. 40**) (**Iwata' 847 discloses an Agent, Agent 300, for handling software downloading, a control panel with a display for displaying information including data transmission and the Agent 300 is a software which stored inside Printer Module of Fig. 10, col 13, lines 14-60, and Figs. 5, 6 & 7 for the 1st embodiment and Figs. 20 & 21, col 18, line 43 to col 19, line 6 for the 4th embodiment**).

Iwata' 847 does not explicitly disclose accessing launch selection information, and the launch selection information indicating one or more applications.

Yangihara' 102 teaches accessing launch selection information (e.g. **launching server and client searching applications and select a searching server, Figs. 3a & 6, col 15, lines 15-38**), and the launch selection information indicating one or more applications (**Step 603 of Fig. 6 indicates that the launch selection information provides a searching server to client user for selection, in addition, a window of Fig. 4A is provided for user to select the appropriate information such an application or a document, col 15, lines 15-38**).

Having an image forming apparatus of Iwata' 847 reference and then given the well-established teaching of Yangihara' 102 reference, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the image forming apparatus of Iwata' 847 reference to include accessing launch selection information, and the launch selection information indicating one or more applications as taught by Yangihara' 102 reference since doing so would increase the versatility of the image forming apparatus and further the services provided could easily be established for one another with predictable results.

Regarding claim 3, in accordance with claim 1.

Iwata' 847 discloses a part for displaying a setting screen for setting the launch selection information on a display part of the image forming apparatus (**e.g. a display data getting device for getting the display data from the storage device, Abstract, col 3, lines 13-15**), and storing information input from the setting screen as the launch selection information (**e.g. a storage device installed in each of the information processing modules for storing display data, Abstract, col 2, lines 66-67**).

Regarding claim 4, in accordance with claim 1.

Iwata' 847 discloses wherein the application launch part (**Display Data Getting Part and LAN Interface of Figs. 44 & 47**) launches the application by referring to information on the application (**downloading a software must refer to a specific application, col 25, lines 22-50 and Steps of Fig. 28 & col 20, lines 25-36**).

Regarding Claim 5, in accordance with claim 4.

Iwata' 847 discloses wherein the information referred to by the application launch part is address information of the application (**e.g. managing addresses of modules, Fig. 28, col 20, lines 25-36**).

Regarding Claim 6, in accordance with claim 1.

Iwata' 847 discloses wherein the application launch part determines whether the application is installed at the location according to presence or absence of predetermined information on the application, and the application launch part launches the application if the application is installed at the location (**Iwata' 847 discloses steps of software downloading verification including addresses, whether is an error in downloading, and determining whether or not the requested display data incorporating with printer state, etc. Figs. 3, 28 & 48, col 12, lines 44-53, col 20, lines 25-36 and col 25, lines 22-50**).

Regarding Claim 7, in accordance with claim 1.

Iwata' 847 discloses wherein the application launch part refers to setting information including information indicating whether a predetermined application is to be launched, and the application launch part launches the predetermined application if the setting information includes information indicating the predetermined application is to be launched (**e.g. display data getting part in getting display data is based on predetermined command, col 12, lines 9-18**).

Regarding Claim 8, in accordance with claim 1.

Iwata' 847 discloses wherein the application launch part refers to setting information including information indicating applications to be launched, and the

application launch part launches the application indicated in the information (e.g. **display data getting part allow use to determine what data or application to be download, Figs. 8 & 48, col 25, line 22 to col 26, line 26).**

Regarding Claim 9, in accordance with claim 8.

Iwata' 847 discloses a part for displaying a setting screen for setting the setting information on a display part of the image forming apparatus (**Figs. 44 and 48 disclose display functions**), and storing information input from the setting screen as the setting information (**display data information is stored by storing means, col 12, lines 9-53**).

Regarding Claim 11.

Iwata' 847 discloses wherein the image forming apparatus receives an application from the computer connected to the image forming apparatus via a network by using an http protocol or an ftp protocol, and the application launch part launches the received application (**e.g. computer and printer are connected to the same network and they communicate each other through the network as shown in Figs. 2 & 48, and HTTP protocol is used, col 1, lines 40-44**).

Regarding Claim 22.

Claim 22 is directed to a computer readable medium claim which substantially corresponds to operation of the device in claim 1, with processing steps directly corresponding to the function of device elements in claim 1. Thus, claim 22 is rejected as set forth above for claim 1.

Regarding Claim 14, in accordance with claim 22.

Claim 3 recites identical features as claim 14, except claim 14 is a computer readable medium claim. Thus, arguments similar to that presented above for claim 3 are also equally applicable to claim 14.

Regarding Claim 15, in accordance with claim 22.

Claim 4 recites identical features as claim 15, except claim 15 is a computer readable medium claim. Thus, arguments similar to that presented above for claim 4 are also equally applicable to claim 15.

Regarding Claim 16, in accordance with claim 16.

Claim 5 recites identical features as claim 16, except claim 16 is a computer readable medium claim. Thus, arguments similar to that presented above for claim 5 are also equally applicable to claim 16.

Regarding Claim 17, in accordance with claim 22.

Claim 6 recites identical features as claim 17, except claim 17 is a computer readable medium claim. Thus, arguments similar to that presented above for claim 6 are also equally applicable to claim 17.

Regarding Claim 18, in accordance with claim 22.

Claim 7 recites identical features as claim 18, except claim 18 is a computer readable medium claim. Thus, arguments similar to that presented above for claim 7 are also equally applicable to claim 18.

Regarding Claim 19, in accordance with claim 22.

Claim 8 recites identical features as claim 19, except claim 19 is a computer readable medium claim. Thus, arguments similar to that presented above for claim 8 are also equally applicable to claim 19.

Regarding Claim 20, in accordance with claim 19.

Claim 9 recites identical features as claim 20, except claim 20 is a computer readable medium claim. Thus, arguments similar to that presented above for claim 9 are also equally applicable to claim 20.

Regarding Claim 21, in accordance with claim 13.

Claim 11 recites identical features as claim 21, except claim 21 is a computer readable medium claim. Thus, arguments similar to that presented above for claim 11 are also equally applicable to claim 21.

7. Claims 2 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwata (US 6,697,847) in view of Yangihara et al (US 6,161,102) as applied to claims 1 and 22 above, and further in view of Washino et al (US 5,537,157)

Regarding claim 2, in accordance with claim 1.

Iwata' 847 discloses wherein the auxiliary storage device is at least one of a hard disk device (**Hard Disk 38 of Fig. 40, col 23, lines 55-63 and col 24, lines 48-51**), and a computer connected to the image forming apparatus via a network (**e.g. a computer connected to a network which is also connected with a printer, col 12, lines 34-38 and Fig. 2**).

Iwata' 847 does not explicitly disclose a recording medium removable from the image forming apparatus without disassembling any other portion of the image forming apparatus.

Washino' 157 teaches a recording medium removable from the image forming apparatus without disassembling any other portion of the image forming apparatus **(with removable hard disk or disk drives with removable media does not require to disassembling any portion of the image forming apparatus, col 4, lines 44-53).**

Having an image forming apparatus of Iwata' 847 reference and then given the well-established teaching of Washino' 157 reference, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the image forming apparatus of Iwata' 847 reference to include a recording medium removable from the image forming apparatus without disassembling any other portion of the image forming apparatus as taught by Washino' 157 reference since doing so would increase the accessibility of updating software of the image forming apparatus without disassembling the apparatus and further the services provided could easily be established for one another with predictable results.

Regarding Claim 13, in accordance with claim 22.

Claim 2 recites identical features as claim 13, except claim 13 is a computer readable medium claim. Thus, arguments similar to that presented above for claim 2 are also equally applicable to claim 13.

8. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Iwata (US 6,697,847) in view of Yangihara et al (US 6,161,102) as applied to claim 1 above, and further in view of Kimura (US 6,226,097).

Regarding Claim 10, in accordance with claim 1.

Iwata' 847 does not disclose that the image forming apparatus further comprising a virtual application service that operates as a client process for the services modules and operates as a server process for the applications, wherein the virtual application service includes the application launch part.

Kimura' 097 discloses a print interrupt method, in that he teaches the image forming apparatus further comprising a virtual application service (**e.g. a virtual server/virtual print spooler/virtual print server provide virtual application services; Figures 1, 7 & 8 col 6, lines 4-13**) that operates as a client process for the services modules (**Figures 7 & 10, col 6, lines 1-13 & col 7, lines 13-38**) and operates as a server process for the applications, wherein the virtual application service includes the application launch part (**e.g. execute various types of programs such as application; Figure 1, col 4, lines 15- 36**).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the combination of Iwata' 847 and Yangihara' 102 to include the image forming apparatus further comprising a virtual application service that operates as a client process for the services modules and operates as a server process for the applications, wherein the virtual application service includes the application launch part taught by Kimura' 097 because it is capable of continuing normal

printing even if a user request interruption of data transmission and performs the next printing (**col 1, lines 43-46**).

9. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Iwata (US 6,697,847) in view of Yangihara et al (US 6,161,102) and further in view of Washino et al (US 5,537,157)

Regarding claim 23.

Iwata' 847 discloses an image forming apparatus (**Information Process System of Figs. 9 & 39, and block diagram arrangement of Information Process System is disclosed in col 14, lines 62-67**) that includes service modules (e.g. **Agent 300 of Fig. 20**) for performing system side processes on image formation, wherein applications can be added to the image forming apparatus separately from the service modules (e.g. **by downloading software or an application from a computer of Fig. 2, col 25, lines 22-44**), the image forming apparatus comprising: an application launch part (**Display Data Getting part and LAN Interface of Figs. 44 & 47**) configured to launch the one or more applications from the auxiliary storage device () (e.g. **downloading software from a computer, col 25, line 22 to col 26, line 26**) wherein the service modules are stored in a memory distinct from the auxiliary storage device (e.g. **hard disk 38 of Fig. 40**) (Iwata' 847 discloses an Agent, Agent 300, for handling software downloading, a control panel with a display for displaying information including data transmission and the Agent 300 is a software which stored inside Printer Module of Fig. 10, col 13, lines 14-60, and Figs. 5, 6 & 7 for the 1st embodiment and Figs. 20 & 21, col 18, line 43 to col 19, line 6 for the 4th embodiment).

Iwata' 847 does not explicitly disclose accessing launch selection information, and the launch selection information indicating one or more applications and a recording medium removable from the image forming apparatus without disassembling any other portion of the image forming apparatus.

Yangihara' 102 teaches accessing launch selection information (**e.g. launching server and client searching applications and select a searching server, Figs. 3a & 6, col 15, lines 15-38**), and the launch selection information indicating one or more applications (**Step 603 of Fig. 6 indicates that the launch selection information provides a searching server to client user for selection, in addition, a window of Fig. 4A is provided for user to select the appropriate information such an application or a document, col 15, lines 15-38**); and

Washino' 157 teaches a recording medium removable from the image forming apparatus without disassembling any other portion of the image forming apparatus (**with removable hard disk or disk drives with removable media does not require to disassembling any portion of the image forming apparatus, col 4, lines 44-53**).

Having an image forming apparatus of Iwata' 847 reference and then given the well-established teaching of Yangihara' 102 reference, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the image forming apparatus of Iwata' 847 reference to include accessing launch selection information, and the launch selection information indicating one or more applications as taught by Yangihara' 102 reference since doing so would increase the versatility of the image forming apparatus; and then to have modified the combination of Iwata' 847

reference and Yangihara' 102 reference to include a recording medium removable from the image forming apparatus without disassembling any other portion of the image forming apparatus as taught by Washino' 157 reference since doing so would increase the accessibility of updating software of the image forming apparatus without disassembling the apparatus, and further the services provided could easily be established for one another with predictable results.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven Kau whose telephone number is 571-270-1120 and fax number is 571-270-2120. The examiner can normally be reached on M-F, 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Moore can be reached on 571-272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Steven Kau/
Examiner, Art Unit 2625
11/26/2008

/David K Moore/
Supervisory Patent Examiner, Art Unit 2625